Process learning on partnerships: building functioning research and practice organizational relationships

Darren Saywell and Jonny Crocker

Abstract: *Implementers and researchers are responding to increasingly strong incentives to work together closely. Donors are placing a higher value on data, rigour, and evidence of impact from development assistance projects. This is seen in policy debates emphasizing value for money, and funding contingent on results and performance. In response, implementing organizations are increasingly collaborating with researchers. Such arrangements incur costs (financial and other), but the return on investment is high. Investments in relationship building, open and frequent communications, a clear understanding of partners' objectives and non-negotiable requirements, and a mind-set of problem solving are important priorities in setting productive implementation science partnerships. We document process learning from developing a partnership between an implementing organization, Plan International, and a research institute, the Water Institute at the University of North Carolina. We make the case that: effective partnerships have preconditions for success; building institutional respect takes time and incremental changes to business as usual; establishing a partnership early with a long start-up period is advisable; accountability and research relevancy increase through shared roles during project design and results interpretation; and research message development requires regular review meetings with increasing frequency toward the end of a project.*

Keywords: sanitation, water, partnerships, research, practice

Water, sanitation, and hygiene (WASH) is a global development priority and concern, with profound effects on health, human rights, and broader economic growth. The relevance of WASH to the international community was most recently reaffirmed in 2016 by its inclusion in the United Nations Sustainable Development Goals (SDGs) (UN General Assembly, 2015). The shift from the Millennium Development Goals (MDGs) to the SDGs involved an ambitious raising of the bar, with an increased coverage target of universal access, and heightened 'safely managed' service benchmarks. Achieving SDG 6 will require an unprecedented, coordinated effort on the part of national governments, organizations engaged in WASH implementation, and researchers.

In the context of resource-constrained development assistance, the rhetoric around evidence-based programming has increased. International donors,

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under increasing scrutiny by their nation's taxpayers to show value for money, are moving to demonstrate outcomes through rigorous approaches to development assistance (Stevens et al., 2013). Implementation science conducted in partnership between researchers and practitioners has become more important as part of that shift in thinking.

However, the development community is largely unfamiliar with how to structure such partnerships effectively. The norm is poorly balanced institutional arrangements, where there is either implementation with monitoring but little to no evaluation, or research conducted on non-replicable interventions with little to no description of implementation. If the trend is increasingly towards donors expecting more of these partnerships to deliver, then there is a pressing need to understand the bottlenecks that constrain them, and conversely the incentives that make them function effectively.

In this paper we present experiences, distil insights, and offer practical guidance on implementer–researcher partnerships, based on five years of experience testing the effectiveness of innovative sanitation behaviour change programmes (project website: http://waterinstitute.unc.edu/clts). In the next section, we explain the preconditions that enabled our institutional relationship. We then comment on aspects of our work that were intentionally included to keep it both relevant and rigorous, and discuss unanticipated challenges and solutions that demonstrate how we managed the partnership. We conclude with an interpretation of the value this partnership produced.

Enabling factors

Even with proper preparation, not all partnerships between research institutes and implementation organizations will be effective and yield relevant research results and their uptake, particularly in the absence of certain initial conditions (Mattessich and Monsey, 1992). The following factors enabled our effective partnership:

- *Existing relationships and personalities.* Senior personnel at Plan and UNC worked together before. Familiarity with working styles and perspectives allowed us to quickly build rapport and make decisions. Professional trust and goodwill gave us confidence to ask hard questions about project design and management. This bred a culture of transparency and candid conversations that allowed us to make important decisions quickly. Where such familiarity is not already present, this can be developed through longer start-up periods, or investing heavily in team building pursuits up front.

- *Donor flexibility.* The Bill & Melinda Gates Foundation (BMGF, the main project funder) sanitation team supported a culture of collaboration, learning, and adaptation. This was demonstrated early on through the BMGF programme officer's engagement in proposal development, and later when BMGF staff were willing to accommodate a long project start-up and changes in design to address unanticipated challenges (e.g. see section 'Discovering confounders …', below).
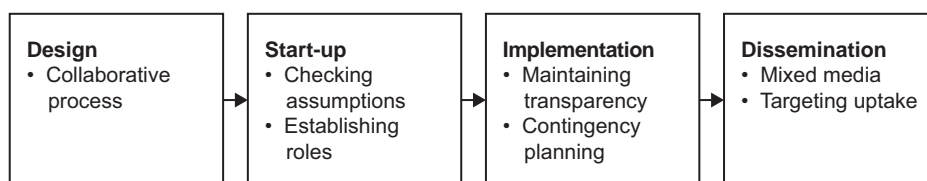
- *Timing of the grant.* The grant benefitted from expedient timing for both Plan and UNC – our incentives aligned. For Plan, the grant coincided with a drive for stronger WASH and evidence-based programming. For UNC, the Water Institute was seeking opportunities to test implementation science and see how practitioners used evidence in practice.
- *Institutional perspective.* The partnership benefitted from the Water Institute's perspective on operational research as an appropriate level of scholarship, which is not always a given in academic circles. Plan's Project Director held a PhD in Sanitary Engineering, had direct experience with complex research, and had an appreciation of academic culture.

Key learning
Familiarity was fundamental – an appreciation and understanding of the strengths and limitations of each respective organization helped to shape the partnership effectively.

Intentionally designed project activities

Each stage of this project included activities designed to work to combine relevance and rigour, and to anticipate, prevent, and react to challenges as they arose. We present these activities by project stage: design, start-up, implementation, and dissemination (Figure 1).

Design
- Collaborative process

Start-up
- Checking assumptions
- Establishing roles

Implementation
- Maintaining transparency
- Contingency planning

Dissemination
- Mixed media
- Targeting uptake

Figure 1 Project stages and activities designed to maintain relevance and rigour

Project design

Merging relevance and rigour in this project began during design and proposal writing. BMGF contacted Plan to solicit a proposal to research community-led total sanitation (CLTS) programmes. Plan was contacted because they were training facilitators or facilitating CLTS themselves in more than 20 countries, and they helped publish the *CLTS Handbook* in 2008 (Kar and Chambers, 2008). A condition for BMGF was involvement of an independent research partner, to ensure the integrity of the research. UNC responded positively when Plan contacted them.

To design three evaluations, a UNC researcher visited Ethiopia, Ghana, and Kenya. Facilitated by Plan USA colleagues, UNC and Plan's country office team had a face-to-face, four-step discussion to arrive at a research question, intervention, and study design (see Box 1). The discussions touched on many themes, and at times cycled back to question 1 when question 3 or 4 could not be answered. In research terms, question 1 yielded the problem statement. Question 2 sparked Plan country offices

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Box 1 Four-step discussion on project design

1. What challenges are you facing in expanding the scale of your community-led total sanitation (CLTS) programmes, and what is impeding the effectiveness of CLTS?
2. What change or addition (innovations) to your projects do you think could overcome these challenges, and what have you tried thus far to overcome these challenges?
3. What study design could we use to evaluate this innovation?
4. How can we feasibly and realistically select districts and villages and structure implementation in order to accommodate the study design? Will doing so negatively impact the innovation's chances of success?

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to propose innovative solutions to their challenges, based on their experience. Discussion triggered by questions 3 and 4 formed the basis of the research and implementation methods.

This process enhanced the value of the resulting proposal in ways that were not all intuitively obvious. Having the meetings face-to-face in-country anchored the discussion in the local context. Beginning with local implementation challenges further anchored the project in the local context, and meant that the resulting research answered questions of immediate relevance. Plan staff felt comfortable discussing their programmes, and were able to pull up project reports, take the UNC researcher to the field, and introduce them to partners. This gave Plan staff a sense of ownership and accountability for the project, which was important when challenges arose during implementation. Having Plan provide potential solutions meant that chosen interventions would be feasible. Question 3 led to a study design with minimal bias and publishable results. While fitting the study design to the implementation proposed by Plan resulted in only one of three evaluations being a randomized controlled trial, the benefits of collaborative design greatly outweighed those from letting the study design dictate how implementation occurred. Question 4 resulted in Plan and UNC negotiating the best way forward that satisfied the requirements and incentives of each side. Either team designing the project independently would have inevitably arrived at a different final proposal. Initiating partnerships at project conception yields policy-relevant research and shared accountability for results, essential ingredients for evidence-based policy (Hunter, 2009).

Key learning

We view starting implementation science partnerships at the design stage as necessary. Many start later: after baseline data collection, or after implementation has occurred. Depending on which partner initiated the project, the implementation or the research will be compromised, which creates a consulting culture rather than a partnership. Partnering at the design stage provides opportunity for trust and confidence to be built. This is of added importance if partners are unfamiliar with each other.

Project start-up

The first activity was conducting situational assessments. The aim of the situational assessments was to revisit assumptions, anchor research in local context, anticipate and troubleshoot challenges, and refine the study designs. This started with policy

and document reviews, followed by a month of semi-structured interviews with government and non-governmental organization (NGO) stakeholders at all levels in each country. We checked if the original implementation challenges discussed during proposal writing were perceived as challenges by government and NGOs. We assessed the feasibility of the innovation in each district; for example, reviewing other sanitation projects that might contaminate the research or yield villages ineligible for inclusion in the study.

The second activity was a systematic review of both journal-published and grey literature. Reviewing grey literature is uncommon but necessary for this project. To check that challenges identified were common, grey literature was more relevant than published literature, as it better reflected practitioner experience. We encourage others to do the same, to check that their research questions address not just a gap in evidence, but a perceived need on the part of practitioners. In our case, it identified others that had experience with similar innovations from which Plan could learn.

Lastly, we established roles between organizations, set up communication channels, and began to build trust. Our primary activity to achieve these goals was a familiar one – kick-off meetings in each country – which included teams from Plan USA and country offices, UNC, government, and local NGO partners. These lasted four days each, and included a detailed review of the implementation and research plans with both teams present, rather than a more common situation in which researchers and implementers separately reviewed their plans. Kick-off meetings were also an opportunity to begin to understand each other's incentives and non-negotiables. For UNC, non-negotiables were: research integrity (adherence to study design and minimizing bias and conflict of interest); research ethics (protecting study participants' anonymity and confidentiality); and research value (publishable results). For Plan, non-negotiables were: reasonable expectation and intent of positive impact within study areas; and relevance of research questions to Plan's programmes.

Key learning

This project had the uncommon opportunity of a one-year project start-up period, before implementation and after the grant was funded. This was due to writing this stage into the proposal (justified by the project's complexity), and to flexibility on the part of the BMGF who was satisfied with funding a start-up year and waiting three years for research results. The start-up period helped in building rapport and adapting to organizational cultures, but more importantly allowed the results from situational assessments and literature reviews to influence the study design and implementation. We recommend others writing implementation science proposals to request longer start-up periods to allow for these preparatory activities.

Implementation

Two features of the partnership added value at this stage. The first was simply regular check-in meetings, deployed to good effect. Through the five years of implementation, the project team maintained a high frequency of contact. Plan staff supported frequent field visits by UNC researchers. Weekly telephone calls were complemented by quarterly face-to-face review meetings. In the last year of the
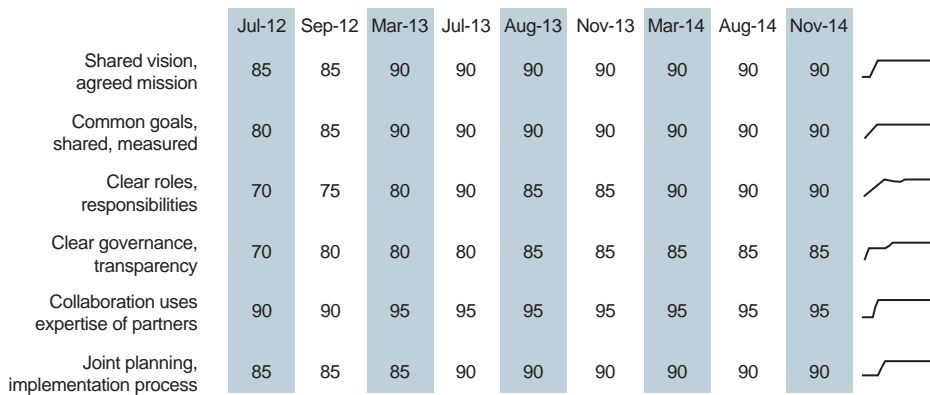
	Jul-12	Sep-12	Mar-13	Jul-13	Aug-13	Nov-13	Mar-14	Aug-14	Nov-14	
Shared vision, agreed mission	85	85	90	90	90	90	90	90	90	
Common goals, shared, measured	80	85	90	90	90	90	90	90	90	
Clear roles, responsibilities	70	75	80	90	85	85	90	90	90	
Clear governance, transparency	70	80	80	80	85	85	85	85	85	
Collaboration uses expertise of partners	90	90	95	95	95	95	95	95	95	
Joint planning, implementation process	85	85	85	90	90	90	90	90	90	

Figure 2 Snapshot of partnership review scorecards used regularly during project implementation

project, these reviews occurred monthly to support the interpretation and dissemination of the research results.

The second feature was simple scorecards to hold ourselves accountable. A project performance and partner dashboard was developed that scored relative progress against set tasks, and to track the performance of each team within the partnership (see Figure 2). Analysis of this data over time helped the partnership see whether tasks or activities were regressing or progressing, and acted as a prompt for direct conversations about what to change, how, and within what timeframe. More importantly, while these tactics did not always lead to immediate resolution of a problem or trend, team members found the scorecard allowed for initiation of difficult conversations or called attention to potential weak points in the project.

While the above are generally highly predictable management tools in any partnership context, they were used effectively to provide high degrees of flexibility to our operations and enable rapid course corrections to implementation.

Dissemination

The knowledge management approach was designed for interpretation, dissemination, and uptake of results from the beginning, and prioritized both internal and external knowledge sharing. Balancing the needs and incentives of Plan and UNC was challenging, especially in the tension between releasing findings quickly and ensuring their accuracy. Five principles guided our dissemination approach:

- *Internal sharing and interpretation.* Findings were shared and discussed between implementation and research teams. As the evaluations tested Plan's innovations and addressed local implementation challenges, the findings were immediately relevant to Plan and their partners. This served to disseminate findings and allowed Plan and UNC to collaboratively interpret the research, both of which are important. Researchers often delay sharing findings with implementation partners, which can cause resentment or distrust of unexpected or negative findings (e.g. see section 'Early dissemination of Ethiopia findings', below).
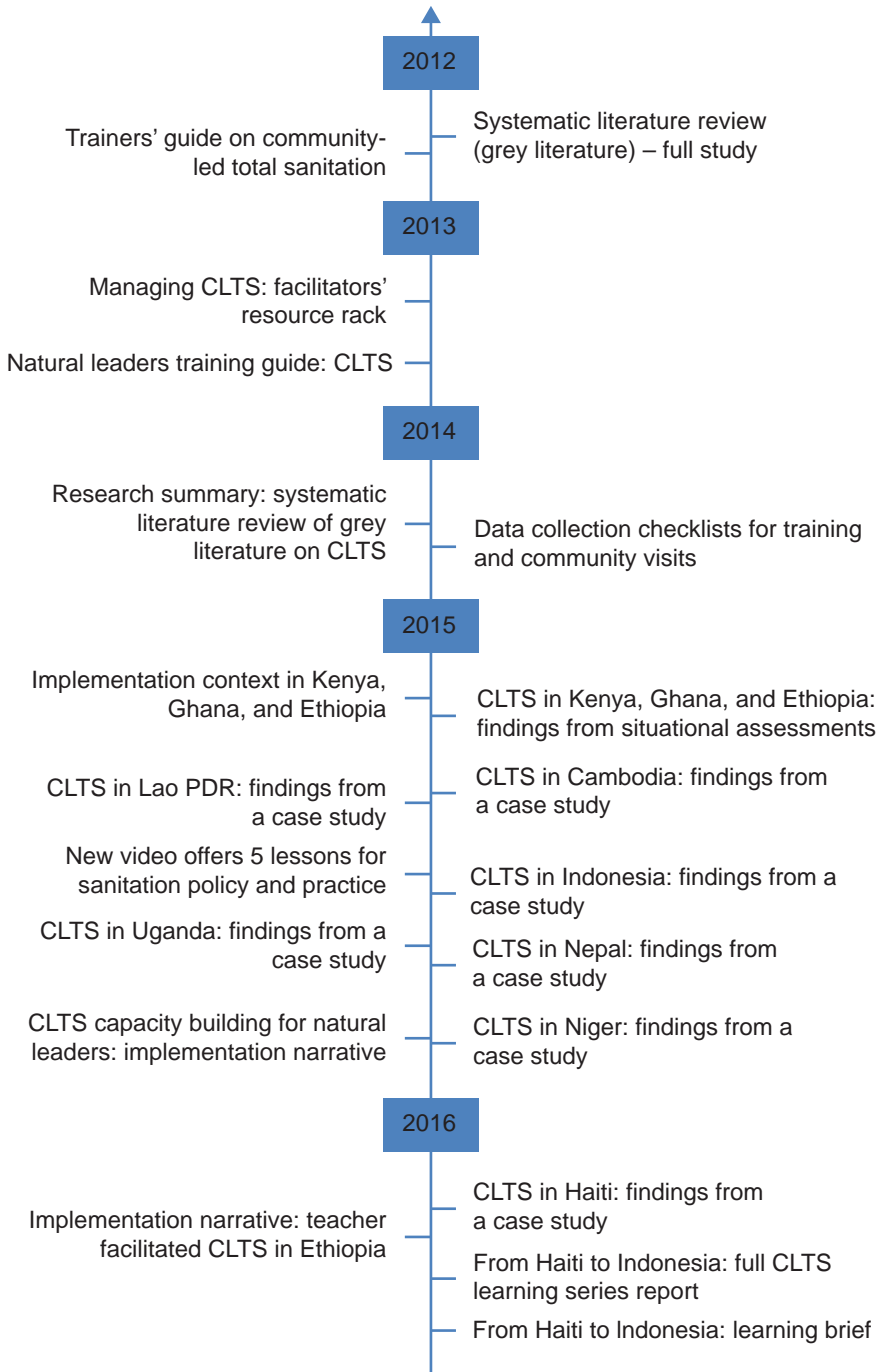
Additionally, research is often disseminated with little interpretation for policy and practice, leaving it to the audience to interpret (and potentially misinterpret) the results. This may result in harmful conclusions, and lower the uptake of research. We recommend internal sharing of results *as they emerge*, combined with collaborative interpretation.

- *Targeting multiple audiences and channels*. From the beginning, the project team agreed to target policy, practice, and scientific audiences for dissemination and learning. This required extensive interpretation of findings and packaging knowledge products differently for each of those audiences' information needs, rather than producing a narrow band of outputs. We reached practitioner audiences primarily through active, direct sharing such as face-to-face workshops, webinars, and email, complemented by posting products to online platforms. To reach policy makers we relied more on intermediaries and interpersonal connections. Some videography work was prepared for storytelling to non-technical audiences, or for audiences not fluent in English. We reached academic audiences primarily through conferences and peer-reviewed journals.

- *High-quality information.* The project team prioritized quality of evidence and value of the deliverables. Knowledge products went through multiple rounds of review by both Plan and UNC team members to ensure they offered value and were comprehensible across audiences.

- *Accessibility of knowledge products.* The project website was designed for low-bandwidth accessibility. Short-form, 2–3 page length briefing notes were prepared as an accompaniment to the long-form reports generated through the project, based on the assumption that 40–60 page length reports would rarely be read in full. Additionally, all academic publications were made open-access.

- *Early dissemination, process learning, and repeat messaging.* The project team sought to publish information for external parties as early as possible to maintain transparency, keep other implementers aware of progress, and to market the project proactively. When possible, these outputs were disseminated early in the life of the project (e.g. the systematic literature review (year 2), training guides (year 3), and Learning Series country reports (years 3 and 4)). Figure 3 illustrates this cascading sequence of report releases.

Unanticipated challenges

Discovering confounders that compromised the original Kenya study design

The Kenya evaluation provides an example of an unanticipated challenge encountered during project start-up. The original Kenya study objective was to evaluate the outcomes of training district government officials in four management skills: resource mobilization; partnership building; supervision; and monitoring. The hypothesis was that the training would result in learning outcomes for trainees, followed by changes in their work activities and improvements in sanitation programmes in their districts. The study design involved surveying

2012

Trainers' guide on community-led total sanitation

Systematic literature review (grey literature) – full study

2013

Managing CLTS: facilitators' resource rack

Natural leaders training guide: CLTS

2014

Research summary: systematic literature review of grey literature on CLTS

Data collection checklists for training and community visits

2015

Implementation context in Kenya, Ghana, and Ethiopia

CLTS in Kenya, Ghana, and Ethiopia: findings from situational assessments

CLTS in Lao PDR: findings from a case study

CLTS in Cambodia: findings from a case study

New video offers 5 lessons for sanitation policy and practice

CLTS in Indonesia: findings from a case study

CLTS in Uganda: findings from a case study

CLTS in Nepal: findings from a case study

CLTS capacity building for natural leaders: implementation narrative

CLTS in Niger: findings from a case study

2016

CLTS in Haiti: findings from a case study

Implementation narrative: teacher facilitated CLTS in Ethiopia

From Haiti to Indonesia: full CLTS learning series report

From Haiti to Indonesia: learning brief

Figure 3 Excerpt of timeline of knowledge products and dates documents disseminated through grant

trainees and those they interact with in two intervention districts, and surveying parallel individuals in two neighbouring control districts where the training did not occur (a quasi-experimental design).

However, the situational assessment fieldwork in June 2012 revealed many confounders that made the comparison to control districts invalid. These confounders included complex institutional arrangements in which NGO and government roles were often indistinguishable, frequent overlapping training given to district officials by multiple organizations, mixed financing of WASH by government and NGOs, dependency on NGOs by district government, and upcoming elections and redistricting. The situational assessment revealed a situation far more complex than originally anticipated. The project team concluded that the original study design would not reveal the impact of the training on learning, individual performance, and organizational results. The more important question became how the complex setting in which district officials work enables and constrains the impact of training programmes.

Plan and UNC managed to redefine the scope of the Kenya study in a way that salvaged the original objectives and provided value for practitioners. The new study addressed sector-wide constraints in Kenya identified from the situational assessment and WASH practitioners. The new study design used a conceptual framework developed through a thorough review of non-WASH training evaluation literature, and was qualitative so did not need comparable control districts. This redesign tracked the experiences of 42 district level managers after training in management skills, and identified enabling and constraining factors that impacted on learning, individual performance, and improved programming.

If this project had not involved a one-year start-up period and situational assessment, we likely would have discovered the problem with the study design after training was under way, and lost the chance to redesign it. Even with the early recognition of the problematic design, arriving at a mutually agreeable solution that the donor would accept was challenging. Plan USA, Plan Kenya, and UNC each proposed different ways forward, and through discussion rooted in finding added value for each organization we arrived at an alternative study design. Ultimately, implementation had to be delayed by one year in Kenya to accommodate this process. But by doing so, the study offered the first rigorous, qualitative work focused on the effectiveness of WASH training programmes (which appealed to UNC), and a framework to understand where and how training investments could be made effective (which appealed to Plan and other practitioners) (Crocker et al., 2016a).

Surveying in Ethiopia and Ghana

In Ethiopia and Ghana we faced setbacks during household surveying. Both study designs relied on surveys at three time points: baseline; midline; and endline. These assessed how key WASH indicators changed over time and the difference in effectiveness of the interventions being compared. The BMGF grant included significant funding for data collection contractors. Due to financial incentives

(indirect costs associated with these contracts) and the justification that Plan had in-country procurement experience, the funding for data collection was allocated to Plan's budget. UNC advocated early on for the responsibility to develop contracts, procure contractors, and oversee data collection. However, the UNC team was convinced to share responsibility for data collection, with Plan contracting and paying the contractors and UNC helping to select the contractors and oversee their work. This muddling of data collection responsibilities led to severe, uncorrectable problems.

Plan issued a Request for Proposals for data collection in Ethiopia and Ghana, and, with UNC input, procured a contractor in each country. Under pressure to optimize spending, and pressure from the procured contractors, Plan paid 50 per cent upfront for data collection services despite UNC's objection. The contractor in Ghana became uncommunicative during the baseline, updating UNC on progress less frequently than requested. The baseline data required months of cleaning and correspondence with the contractor prior to analysis. At the midline survey, the contractor reported extremely high attrition rates (over 30 per cent of baseline households not found for resurveying). Additionally, independently corroborated reports indicated that their field team was rushing surveying and over-reporting their days spent in the field. Through careful comparison of baseline and midline data, and communication with the contractor's drivers, UNC discovered that the contractor had cut many corners to save costs, resulting in low quality data. The most significant problem was an incomplete sampling frame (household listing), which resulted in a non-representative sample. This made the baseline and midline data in Ghana unusable.

We rapidly procured a new contractor, selected by UNC, with payment of invoices upon UNC approving completed services and a contractual obligation for daily progress reports and troubleshooting with UNC researchers. Through this new contractual arrangement and strong quality control methods (Crocker et al., 2016b) the new contractor did a complete census of project communities to create a new sampling frame and completed a new midline and eventually an endline survey, yielding high quality data. As the Ghana study was a randomized controlled trial, we could still evaluate the impact of the intervention without baseline data. However, other planned analysis was lost, reducing the value of the study.

This same situation could have led to worse outcomes. UNC could have analysed non-representative, low quality data (knowingly or unknowingly) and disseminated inaccurate research, leading to poorly informed and potentially harmful decisions. We are aware of similar outcomes having occurred in other public health research projects (within and outside WASH) due to the dire financial and career consequences researchers can face if they notify donors of low quality or non-representative data in the middle of an evaluation. Alternatively, UNC could have discovered and acknowledged the problems, and Plan or the donor could have abandoned the evaluation entirely. Instead, we discarded the problematic data, went through a labour-intensive rapid re-procurement process, and recovered the remaining value of the study. This process required flexibility on the part of the donor (BMGF), and humility and integrity on the parts of Plan and UNC.

Key learning
Many of our lessons learned focus on the value of shared roles and responsibilities between an implementing organization and a research institute. However, in an implementation science project, certain activities must be strictly assigned to one party based on their experience and responsibility. Some boundaries must be bridged, while others must not be blurred or broken down by institutional incentives or complacency. Both parties must be willing to make harsh decisions if needed to maintain data quality. Data collection is one such area: the research partner must hold responsibility for procuring contractors and overseeing data collection.

Spillover between approaches in Ethiopia

In Ethiopia, we experienced a problem during implementation that threatened to compromise the research. The Ethiopia evaluation compared the effectiveness of two different types of facilitators. In one set of villages, health extension workers (HEWs) were to facilitate CLTS ('HEW-CLTS'). In a separate set of villages, teachers were to facilitate CLTS ('teacher-CLTS'). The evaluation was dependent on not mixing facilitator types in any villages (which would constitute spillover). Implementation began with Plan Ethiopia training the different facilitators, who then proceeded to facilitate CLTS in their villages. The evaluations in Ethiopia and Ghana included cost analysis, for which Plan staff filled out simple checklists to track implementation activities.

Two months into implementation, during a routine visit with the Plan Ethiopia team, a UNC researcher discovered training sessions that deviated from the project design. They discovered this deviation by reviewing Plan staff's implementation tracking checklists. In the HEW-CLTS villages, teachers had been included in a one-day orientation, and eight *kebele* leaders had been included in the four-day facilitator training (instead of just two HEWs; *kebeles* are the lowest administrative unit of government in Ethiopia). Of greater concern, in the teacher-CLTS villages two HEWs and two *kebele* leaders had been included in the four-day facilitator training (instead of just teachers). These deviations also had not happened consistently across the two project districts. In brief, the two approaches being compared had partially merged, and the intended consistency in implementation between districts was gone. If the approaches had completely merged, there would have no longer been two different approaches to compare, invalidating the study design.

The deviation led to a fruitful discussion between practitioners and researchers. Plan explained two important facts of working within *kebeles* in Ethiopia: first, sanitation is the responsibility of HEWs, and so, without their cooperation, teachers would not be allowed to facilitate CLTS; and, secondly, development projects within *kebeles* cannot proceed without *kebele* leaders' blessing. The study had been designed too cleanly and strictly, without sufficient consideration of the Ethiopia context. UNC explained to Plan that without sufficient difference between the approaches, there would be no evaluation, negating the main objective of the grant. After thorough discussion, additional training sessions were planned that resulted in two different *groups* of facilitators being compared (rather than a simple comparison of HEWs to teachers) and in equivalent implementation across districts (further details can be found in

Plan International Ethiopia, 2015). This spillover between approaches taught practitioners the implications of working within a research study, and researchers the importance of tailoring implementation to the local context.

This deviation from the project design was caught and remedied for two reasons. The first was the inclusion of implementation tracking in the study, which allowed for an early warning that implementation had gone awry. The second was the UNC researcher regularly visiting the Plan Ethiopia team for check-ins, which allowed for a face-to-face meeting to resolve the issue.

Key learning
We recommend incorporating implementation tracking into future implementation science studies for two reasons: it allows deviations to be caught and addressed quickly, and enables valuable activity-based process and cost analysis (Crocker et al., 2017), which is rare among WASH evaluations.

Early dissemination of Ethiopia findings

Rushed dissemination of the Ethiopia evaluation threatened to spoil the relationship between Plan and UNC. The midline survey indicated that while open defecation decreased under both approaches, teacher-facilitated CLTS was less effective (with an 8.2 percentage point smaller reduction in open defecation than HEW-facilitated CLTS). Rapid reading of these results might lead to the conclusion that teacher-facilitated CLTS was ineffective, or that teachers had no role in promoting sanitation. UNC rushed to disseminate the Ethiopia results at a UNC conference, without having first shared them internally or spent time interpreting them together with Ethiopian colleagues. On hearing these results, one well-respected head of a significant United Nations implementing agency called an emergency meeting with Plan Ethiopia to discuss why the approach had 'failed'. Plan Ethiopia colleagues were understandably upset and reacted by questioning the validity of the results. The risk for Plan was significant – as a major implementer for the UN agency in question, the reputational and funding risk from such a negative interpretation of results was huge.

Plan and UNC addressed this risk of misinterpretation in multiple ways. The team invested time and resources in webinar-based consultations with the Plan country office in Ethiopia on early findings, before sharing them publicly. This added value by providing a forum to interpret the results and discuss how to clearly communicate them to avoid misinterpretation. On closer inspection, our results point towards the importance of support from *kebele* leaders, which teachers had difficulty obtaining. That teachers should be tested in a supporting role was a more appropriate conclusion than that teachers were ineffective. This internal sharing and interpretation also ensured buy-in from the implementation teams who helped to disseminate findings to their peers. We successfully replicated this approach in Ghana and Kenya and avoided similar problems.

Maintaining research integrity depends on researchers having the ultimate decision on how to represent results (Marmot, 2004), and findings should still

be presented and interpreted early and often to maximize their value. In our experience, internal dissemination and interpretation did not compromise either aspect of research integrity.

Key learning
We recommend researchers share and interpret results with implementation partners as they emerge. We found this to be strategic in terms of how the broader takeaways from the research are viewed. Moreover, this approach allowed the team to develop a coherent story on what was at face value a complex message to interpret.

Lessons learned and recommendations

Partnerships of this kind can work, and offer significant returns on investment. They add value that could not otherwise be delivered (see Box 2). Forming and sustaining partnerships that are robust enough to adapt to unanticipated challenges is not a simple undertaking with guaranteed success. Our experience showed that personal relationships, taking advantage of moments

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Box 2 Project insight: the value produced from the Testing CLTS Approaches for Scalability research

Reflecting on the implementation process and the research findings reveals some significant firsts that were delivered by working in partnership:

- CLTS grey literature and projects implemented in the field are replete with examples of adaptations and innovations, but with a lack of evidence that stands up to academic scrutiny (Venkataramanan et al., 2018). Much of the value of this project – and the partnership behind it – came from blending the need for practical, relevant inquiry into CLTS implementation approaches with rigorous, credible research methods that yielded high quality evidence. This work has filled a well-documented gap in sector thinking.
- The project provides evidence on the 'performance envelope' in which CLTS works optimally. This is significant from an efficiency and scalability perspective, and should drive implementers to a clearer diagnosis of the context in which to design and programme CLTS.
- The research provides a breakdown of the true costs associated with a sanitation behaviour change methodology. This analysis dispels the widespread perception that CLTS is an ultra-low- or low-cost approach, and builds a firm foundation for how implementers should consider costing other WASH behaviour change interventions.
- The partnership took deliberate steps to document results, experiences, and milestones in the implementation process throughout the lifecycle of the project. Early action allowed the project team to capture feedback and build this adaptively into each implementation stage of the project. Deliverables from the research were systematically repackaged according to the needs of a range of audiences so as to drive broader uptake of those results and findings.

Taken in isolation, these results are substantive in their own right as contributions to the body of evidence and knowledge on this subject. Operationally, both within Plan and in the wider WASH sector, these findings have influenced sanitation programming. In Ethiopia, for example, an updated teacher-facilitated CLTS approach with greater incorporation of *kebele* leaders has been taken to large scale in UNICEF's sanitation programme, being built into programme design across 55 districts. Separately, both WaterAid and UNICEF have invested in trialling the costing methodology developed in this project for wider application and use.

Box 3 Building trust in partnerships

Trust in partnership development is often intangible – we frequently know when it exists, but not how it was achieved. In our experience, trust was a function of several factors:

- Familiarity between team members: established working relationships supported healthy debate and provided confidence in defining non-negotiable elements in the partnership.
- Planning: a long start-up phase to the work allowed for the partnership to plan for success and gain familiarity in each partner's culture and operating context.
- Roles and responsibilities: we spent time reinforcing boundaries to our respective roles and responsibilities to avoid confusion and add clarity to how the partnership should function.
- Predictability: we invested time in building the processes for decision-making, coordination, and conflict resolution as one way to ensure that trust was achieved through reliable, repeatable, and consistent ways of working.

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to build trust during start-up and implementation, and a willingness to cope with adversity were all foundational to the success behind this institutional partnership. In the absence of familiarity between the partners, facilitators or neutral parties may be required to help navigate difficult conversations, or resolve conflicts during apparent impasses.

Context was key. Significant energy was placed on understanding contextual factors at an early stage of the partnership, to set and manage expectations appropriately. Of critical importance was a mutual understanding of the deal breakers to the partnership – those events or decisions that would force one partner to exit. Rather than relying on trust between individuals, our intention was to ensure that the processes for making decisions, implementing activities, and resolving conflict were as predictable as possible.

Institutional respect/trust takes time to build. Existing trust between principal personalities in Plan and UNC aided the partnership initially; however, additional respect formed through the partners' integrity (See Box 3). Trust in the partnership process was paramount – and helped guide a belief that the interests, concerns, and grievances of both partners would be heard and addressed. Understanding why Plan or UNC behave in a certain way was important in developing respect and trust. There was a slow and steady build-up to an acceptable comfort level. This is a laborious process with no shortcuts. Institutional respect can be quickly derailed when implementation or research go awry. A high-level, strategic willingness to stay vested in the partnership helped to navigate these moments. This experience is mirrored in the literature: initial trust aids in initiating collaboration between organizations, but trust-building occurs through a cyclical process of managing risk and setbacks and meeting partners' expectations (Vangen and Huxham, 2008).

Building a strong partnership has its costs. The deliberate investments made by both Plan and UNC in building the partnership had budgetary and human resource implications. Phone calls, meetings, travel costs, and staff time were all set aside to support the partnership, separate and apart from the

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Box 4 Illustrative resources committed to partnership building within the scope of the project

- Bi-weekly telephone coordination meetings, average four professional staff, 1 hour each × 20 per year (years 1–4)
- Quarterly review meetings (face-to-face), average five professional staff, 5 hours each × 4 per year (years 1–4)
- Monthly results meetings (face-to-face), average five professional staff, 5 hours each × 12 per year (year 4)

Of these activities, efforts to build consensus around messaging and the implications of the research findings in year 4 (monthly results meetings) felt most productive as an investment in partnership building. These occasions helped to stress-test the results and placed their value in alignment with trends in the sector/literature.

Based on the above, and using estimates for costed hourly staff rates, accommodation, per diems, travel costs, and other incidentals, the authors estimate that approximately US$110,000 was spent over four years allied to dedicated partnership building actions. This amounted to approximately 1.5 per cent of the total grant budget.

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achievement of deliverables for the client. Activities such as situational assessments, face-to-face meetings, and learning events were invaluable to the interpretation of findings and contribution to the evidence base. These required significant resources, as Box 4 indicates. Our view is that the resulting learning is more insightful as a result.

Partnerships of this kind are developed through small, incremental steps:

- Highly regularized communication between the implementation teams, and with the donor. This supported consensus building and the development of a 'one team' approach which mitigated the risk of isolation or competition between the two partners.
- Increasing frequency of face-to-face meetings between Plan and UNC towards the end of the project, with focus on interpretation of findings and common messaging from the research. Other research-practice partnership literature also emphasizes the importance of frequent meetings, but not specifically at the interpretation stage (Lasker and Weiss, 2003; Aniekwe et al., 2012; Stevens et al., 2013).
- Clear delineation of roles and responsibilities early in the project, but acknowledgement of the need for a flexible approach on an ad hoc basis.
- Early planning for dissemination to a wide range of audiences.

In recommending practical next steps for effective partnership building, we argue that practitioners must focus on four tasks: identify project staff with familiarity of research to support project leadership; invest in raising awareness with field staff about the importance of rigorously observing research methods; understand timelines and opportunities around dissemination of research findings; and motivate field staff to engage actively with researchers in pre-award proposal development.

We argue that researchers should: begin implementation science partnerships with collaborative conception of research questions; communicate to their institutions that these partnerships take time to deliver publishable results, but that the longer timeline yields more valuable results; and recognize that this form of research continues beyond generating findings to joint interpretation of results and disseminating outside typical academic channels.

About the Author

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References

Aniekwe, C.C., Hayman, R., Mdee, A., Akuni, J., Lall, P. and Stevens, D. (2012) *Academic-NGO Collaboration in International Development Research: A Reflection on the Issues* [pdf] <https://www.intrac.org/wpcms/wp-content/uploads/2016/09/Academic-NGO-Collaboration-in-International-Development_September-2012.pdf> [accessed 15 November 2018].

Crocker, J., Shields, K.F., Venkataramanan, V., Saywell, D. and Bartram, J. (2016a) 'Building capacity for water, sanitation, and hygiene programming: training evaluation theory applied to CLTS management training in Kenya', *Social Science & Medicine* 166: 66–76 <http://dx.doi.org/10.1016/j.socscimed.2016.08.008>.

Crocker, J., Abodoo, E., Asamani, D., Domapielle, W., Gyapong, B. and Bartram, J. (2016b) 'Impact evaluation of training natural leaders during a community-led total sanitation intervention: a cluster-randomized field trial in Ghana', *Environmental Science & Technology* 50(16): 8867–75 <http://dx.doi.org/10.1021/acs.est.6b01557>.

Crocker, J., Saywell, D., Shields, K.F., Kolsky, P. and Bartram, J. (2017) 'The true costs of participatory sanitation: evidence from community-led total sanitation studies in Ghana and Ethiopia', *Science of the Total Environment* 601–2: 1075–83 <http://dx.doi.org/10.1016/j.scitotenv.2017.05.279>.

Hunter, D.J. (2009) 'Relationship between evidence and policy: a case of evidence-based policy or policy-based evidence?' *Public Health* 123: 583–6 <http://dx.doi.org/10.1016/j.puhe.2009.07.011>.

Kar, K. and Chambers, R. (2008) *Handbook on Community-led Total Sanitation* [online], Plan UK and Institute of Development Studies <https://opendocs.ids.ac.uk/opendocs/handle/123456789/872> [accessed 15 November 2018].

Lasker, R.D. and Weiss, E.S. (2003) 'Broadening participation in community problem solving: a multidisciplinary model to support collaborative practice and research', *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 80(1): 14–47 <https://dx.doi.org/10.1093%2Fjurban%2Fjtg014>.

Marmot, M.G. (2004) 'Evidence based policy or policy based evidence?' *BMJ* 328: 906–7 <https://dx.doi.org/10.1136%2Fbmj.328.7445.906>.

Mattessich, P.W. and Monsey, B.R. (1992) *Collaboration: What Makes It Work? A Review of Research Literature on Factors Influencing Successful Collaboration* [online], St Paul, MN: Amherst H Wilder Foundation <https://eric.ed.gov/?id=ED390758>.

Plan International Ethiopia (2015) *Teacher-facilitated Community-led Total Sanitation: Implementation Narrative* [pdf] <https://waterinstitute.unc.edu/files/2015/12/clts-gates-ethiopia-2015.pdf> [accessed 15 November 2018].

Stevens, D., Hayman, R. and Mdee, A. (2013) '"Cracking collaboration" between NGOs and academics in development research', *Development in Practice* 23(8): 1071–7 <http://dx.doi.org/10.1080/09614524.2013.840266>.

UN General Assembly (2015) *Draft Outcome Document of the United Nations Summit for the Adoption of the Post-2015 Development Agenda* [online] <http://www.un.org/ga/search/view_doc.asp?symbol=A/69/L.85&Lang=E> [accessed 15 November 2018].

Vangen, S. and Huxham, C. (2008) 'Nurturing collaborative relations: building trust in interorganizational collaboration', *The Journal of Applied Behavioral Science* 39(1): 5–31 <https://doi.org/10.1177/0021886303039001001>.

Venkataramanan, V., Crocker, J., Karon, A. and Bartram, J. (2018) 'Community-led total sanitation: a mixed-methods systematic review of evidence and its quality', *Environmental Health Perspectives* 126(02) <http://dx.doi.org/10.1289/EHP1965>.